

# Electroluminescence Thin Film Inspection

Inline high resolution inspection system  
for thin film modules



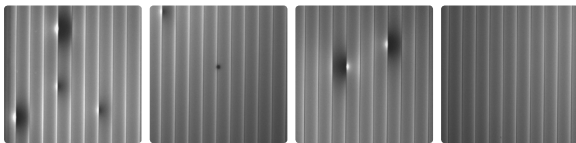
...see the hidden defects



## Field of Application

EL inspection is used to see the hidden defects in a module production process. The SolarModule TF-inline is a high performance inline electroluminescence imaging system for thin film solar modules. The standard image processing software detects and classifies typical defects like scribe defects and pinholes fully automatic. The mechanical concept allows very easy integration into the thin film process.

Using electroluminescence inspection shows clearly process relevant defects and thereby provides a fast process feedback. This leads to an overall improved quality and to a higher yield output of the production line. An integrated barcode scanner and different interfaces for the line integration are available as options.



Sample images: scribe defects, pinhole and no defect

## Customer Benefits

- Highest resolution
- Reliable image processing software
- Useful process feedback

Resolution	215µm/pixel equivalent to 31 MPixel
Field of view	1100mm x 1300mm
Module types	aSi, CdTe, CIS, CIGS
Image acquisition time	<40s
Dimensions (W x H x L)	1420mm x 1140mm x 1500mm
Cameras	Cooled NIR-CCD cameras 1.4Mpixel
Interfaces	Modbus I/O, Digital I/O, Profibus, CC Link, other on request



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